POSITION STATEMENT ON THE REVISION OF EMERGENCY CARE PROTOCOLS

1. POSITION STATEMENT

The need for evidence-based clinical practice guidelines (CPGs) to facilitate best practice and patient-centred pre-hospital emergency care is well recognised internationally. Currently the Professional Board for Emergency Care (PBEC) at the Health Professions Council of South Africa is responsible for the development and publication of CPGs (previously refed to as protocols), but the PBEC indicated in 2012 that the process of CPG development and updating will be contracted out. In response to a PBEC call for proposals for this process originally sent out in 2012, the Emergency Care Society of South Africa (ECSSA) indicated that it was not in a position, at the time, to take on a project of this magnitude.

It is ECSSA's position that the Society should in future (beyond the current protocol review process conducted under the auspices of the African Federation for Emergency Medicine) serve as the custodian of pre-hospital care CPGs and take the responsibility for the continuing review and development of CPGs. The Society should also place itself to fulfil related functions including advice to the PBEC on clinical practice-related matters and clinical research priorities.

In using the term CPG above it is acknowledged that there is currently some confusion about terminology and how this relates to purpose and usage. Historically, the term "protocol" has been used to describe the PBEC's publications aimed at guiding clinical practice and providing some form of decision support. The current process of protocol review should not only focus on clinical content, but should also address and clarify:

- Terminology and how this relates to intended use, specifically whether the intention is to produce a prescriptive protocol with minimum scope for variation, or a broader and more flexible CPG, or both.
- How revised CPGs and/or protocols are intended to be used by emergency care personnel with different qualifications, both older and newer, and whether there should be variation in the approach used which is dependent on qualification.

In positioning itself to take up the challenge of CPG custodianship in the future, ECSSA must over the next 18-24 months determine:

- An appropriate methodology which is capable of producing evidence-based CPGs, which allows for ongoing review (at least every 24 months) and which is agile enough to respond in even shorter time frames to new evidence.
- A means of effective dissemination of CPGs and updates.

2. SUPPORTING INFORMATION

1. Background

The first EC protocols, developed in the early 1980s by a few medical practitioners' individual efforts, were prescriptive and inviolable. There were several situations where the Advanced Life Support (ALS) paramedic was obliged to consult the Supervising Medical Officer to approve certain interventions, including termination of resuscitation and use of benzodiazepines for status epilepticus. The position evolved to where ALS providers now enjoy more freedom to administer medications independently, but still strictly within the confines of the prescriptive protocols. The PBEC regulates and enforces a national scope of practice via a set of specific protocols and treatment algorithms which are to be applied in the EC situation.

The latest version of the scope of practice and protocols for ALS, Intermediate Life Support (ILS) and Basic Life Support (BLS) providers was published in September 2006, with the addition of the scope of practice and protocols for the Emergency Care Technician (ECT) as well as the Emergency Care Practitioner (ECP) qualification in 2009. The lack of revision and updates over the last several years indicates the necessity

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for an evidence-based review of the *status quo* of pre-hospital clinical care and the future assurance that guidelines will remain continuously current as well as locally relevant and contextualized to the SA *milieu*.

Several factors need to be considered in the discussion around the revision of current EC protocols. With so many varying levels of qualification in Emergency Medical Services (EMS) in SA, and confusion related to new qualifications being introduced and old ones being phased out, the guidelines need to be carefully designed and matched to the appropriate level. Each category of EC provider would need their own compendium of bespoke guidelines, congruent with their qualification, scope of practice and clinical decision-making capacity and in-line with current best evidence. Treatment protocols should not be construed as prohibiting flexibility. The EC provider must use their judgment and discretion in administering treatment, but only EC providers with the commensurate levels of training should be expected to engage in independent clinical decision-making. Guidelines should be routinely consulted during patient care to assure best practice, medico-legal certainty and defensible, safe patient care.

2. Role of ECSSA

ECSSA supports the PBEC in its pursuit of continuous professional, scientific and clinical development of EC as a discipline, ensuring the alignment of EC in the SA pre-hospital context with the best available evidence and enabling international best-practice.

ECSSA, in support of the PBEC's mandate, should shoulder the responsibility to:

- Advise the PBEC on all matters relating to the clinical practice of EC, including but not limited to: scopes of practice, capabilities, protocols, guidelines, etc.
- Drive and facilitate the continual review of published literature and to expeditiously translate international EC best-practice into the SA PBEC protocols/guidelines/ scopes of practice.
- Serve as the custodian of the protocols/guidelines and engage, liaise and collaborate with all relevant and appropriate stakeholders and experts as and when required, to ensure both consensus and the reflection of SA context in the PBEC protocols/ guidelines.
- Inform potential researchers of research gaps and priorities in SA EMS clinical practice, and thus to encourage research initiatives.
- Facilitate and encourage sustainable long-term momentum in protocols/guidelines analysis, review, and update - by emergency care professionals, for emergency care professionals.

3. Topics

a. Definitions of Guideline Terminology

Clinical guidelines are an essential component in quality medical care. Early definitions by the Institute of Medicine (IOM),[1] defined clinical guidelines as 'systematically developed statements to assist practitioner and patient decisions about appropriate healthcare for specific clinical circumstances'. However, the definition lacked mention of guideline development methodology and was updated to 'Clinical guidelines are statements that include recommendations intended to optimize patient care that are informed by a systematic review of evidence and an assessment of the benefits and harms of alternative care options', emphasizing rigorous methodology.[2]

Global consensus on guideline related terminology is lacking. Guidelines, clinical practice guidelines, protocols, standard operating procedures and care pathways are often used interchangeably. Clinical practice guidelines, the recommended focus by ECSSA for the PBEC and appointed guideline developers, relate to health outcome/matters, dealing with clinical symptoms or conditions, and are typically intended to be used by healthcare practitioners.[3] These clinical practice guidelines contain statements of best-practice and appropriate evidence tiered recommendations for various concerns regarding diagnosis, practice, scope, management, monitoring and evaluation backed by rigorous methodology. Protocols, however, are directed at providing step by step instruction usually originating from clinical practice guidelines, and describing technical implementation aspects of guideline recommendations.

b. Guidelines vs Protocol

The 2006 and other related PBEC EC protocols were, at the time of publication, acceptable documents. Almost ten years later, this no longer holds true as the protocols are undoubtedly outdated both in scope, content, best-practice and methodological rigour and lack alignment with the current and future vision of the profession in SA.

The future of EC in SA is based on practitioners with the level of knowledge and skills to practice independently and make good sound clinical decisions.[4] As a result, that which directs EC must be in-line with the vision of the profession. The goal is to compile clear recommendations based on the best available evidence. Guidelines and protocols are different entities and the revised clinical guidelines for the SA context may require a blend of both CPGs and protocols, dependent on the level of qualification or the nature of the intervention and/or underlying condition. Protocols are prescriptive, aimed at standardizing care and minimizing variation, limiting autonomous decision-making.[5] CPGs on the other hand, more holistically inform care, promote critical thinking and advise clinical decision-making.[5] Experienced and suitably qualified practitioners use discretion and clinical judgment to provide individual care. This necessitates the design of guidelines in harmony with the level of qualification they are intended for and in alignment with clinicians' decision-making capacity.

c. Purpose and Intent

The purpose of EC CPGs are to facilitate best practice EC, ensuring a strong evidence base, a patient-centred approach, alignment with the three tiered EMS providers levels contained within the National Emergency Care Education and Training (NECET)[6] policy (however, still recognising the existing qualifications of personnel), relevance in terms of international best practices and contextual appropriateness for SA.

It should promote and cement the concepts of evidence based practice and evidence based decision making in the SA prehospital setting. Evidence Based Practice defined by David Sackett *et al* [7] in 1996 as the

integration of best available evidence with clinical expertise and patient values. Evidence based decision-making translates best clinical evidence through a systematic approach into organisational policy-making procedures to provide best quality health care. The EC CPGs should facilitate the incorporation of present-day evidence-based-practice in the pre-hospital setting to ensure quality of care, good patient outcomes and to minimize inappropriate variation in clinical practice, while aiding SA EMS organizations in evidence based policy making.[8]

The EC CPGs should be balanced and blend both prescriptive and descriptive elements. They should be patient-centered and consider patient subgroups where necessary, as well as being contextually appropriate to the resource limited SA setting while remaining in line with international standards. The boundaries of the EC CPGs and clearly accepted best practices should be prescribed, but where evidence is scant with no clear directive, this should be stated. Essential explanatory *aide-mémoire* information may, also be included but only to the extent to which it will facilitate and expedite safe patient care. EC CPGs should reflect current research and be referenced, mandating a dynamic ongoing evidence review and guideline development process to minimize the gap between evidence publication and translation into policy and practice. The EC CPGs should be a 'living' document, warranting prompt modification in the event that new high quality evidence becomes available. In the absence of research, only then is consensus expert opinion acceptable.

d. Utilization of Clinical Guidelines

From the perspective of EMS organisations and EMS governing bodies, EC CPGs can assist in the development of quality and clinical performance indicators and support evidence based policy-making in addition to being an important facet in clinical governances and quality improvement initiatives.

EC CPGs undoubtedly have educational implications and will have significant influence in shaping the clinical practice of EC providers during education and training, in addition to the development of an understanding and appreciation of evidence based medicine early in their careers.[9]

From the practitioner's point of view, evidence-based CPGs update EC providers on the newest available scientific evidence and relieve them of the burden of reviewing and evaluating evidence to incorporate into patient care. It provides them with unbiased, evidence based and methodologically sound recommendations to provide effective patient care. EC CPGs will reduce variation in practice and limit patient care based on practitioner's anecdotal opinion. For EC CPGs to be incorporated into everyday care, they must be easy to use, acceptable to practitioners and easily accessible as a point of reference.[9]

e. Legal Implications

The Bill of Rights,[10] enshrined in Chapter 2 of the Constitution of the Republic of South Africa, as well as the National Health Act (Act No 61 of 2003);[11] the Health Professions Act (Act No 56 of 1974);[12] the Mental Health Care Act (Act No 17 of 2002); the Patients' Rights Charter[13] and ethical guidelines and general rulings generated by the HPCSA form the legal framework for health care in South Africa.

The HPCSA is a statutory body that guides and regulates health care professions, whilst setting the standard for education and training, professional practice and ethical behaviour. The PBEC, being a duly constituted professional board of the HPCSA, is therefore the concerned body that governs the profession of EC and thus the CPGs published by the board – together with the norms and standards of the profession at large - will form the legal standard against which practitioners' conduct is measured. The EC CPGs do not suspend practitioners' autonomy and clinical judgment, and failure to adhere to these guidelines does not inherently constitute malpractice. In order to provide for greater medico-legal certainty, EC CPGs must be based on sound clinical evidence from both local and international contexts and the development process and procedures must be well documented. The guidelines need to be continuously updated, reflect current evidence and must support best clinical practice. Processes and systems should be clear, transparent and defined, and should *inter alia* include future review dates, strict version control, editing and updating procedures.

f. Qualification

EC qualifications within the SA pre-hospital setting incorporate various levels of care, clinical knowledge and clinical decision making capacity. Consequently, the EC CPGs need to ensure that all levels of qualification are appropriately reflected in treatment recommendations.

g. Guidelines Development Process and Updates

The EC CPGs development process should be clear, rigorous, reproducible and systematic in its approach. As in all secondary research, the methodology should be clear and valid, and reporting the CPG development process, output and methods must adhere to best reporting standards, for example guided by the AGREE II tool for guidelines determining guideline quality.[14]

EC providers may not be interested in the guideline development process or guideline document: a separate output should be published to describe these aspects. This end-user document should refer to the CPGs, but be compact and easy to use in the volatile pre-hospital setting. The end-user document should be practitioner focused, providing easy to use recommendations and algorithmic treatment options, referenced to the guideline document. Presenting symptoms and condition specific indexing can be used.

EC CPGs should be developed by a core multidisciplinary team, incorporating experts in EC (including emergency medicine and emergency care), clinical epidemiologists and methodologists. The CPG multidisciplinary team should be supported by an advisory board/panel representing various stakeholders including professional societies, EC providers, educators from Higher Education Institutes and colleges and the EC community.

h. Dissemination and Implementation Methods

Evidence based recommendations are only as good as their uptake and application. Developing CPGs is only one part of guideline development, other essential facets include

dissemination, implementation and evaluation and these should be stressed. Dissemination and implementation should take a pragmatic approach, making use of best evidence strategies. Effective methods include using peers as change champions, overt organisational support, PBEC communication platforms and using different teaching and learning strategies to address adult learning requirements.[15]

i. Updating

During the guideline development process, gaps in available research must be highlighted to prioritize future research activities. The review and update of guidelines should done at least every two years.[16, 17]

j. Clinical Governance

Clinical governance is a systematic approach to improving quality and standard of clinical care within healthcare organisations. It assigns responsibility and accountability for quality of care to the organisation, its managers and individual practitioners. Ensuring that practitioners are answerable for their clinical decision-making, clinical practice, competency and continuous development, all in a blame free environment.[18, 19] As the body responsible for guiding and regulating EC within SA, the PBEC plays an important part in prescribing the need for and advocating the structure and requirements of clinical governance. The revised EC CPGs will play a vital role in the future development of clinical governance, clinical performance measurement and quality improvement initiatives in the SA pre-hospital setting.

Furthermore, monitoring and evaluating the implementation and impact of the new CPGs on patient care and patient outcomes are imperative, from both a national and organisational point of view.[18, 19]

4. Conclusion

This position statement highlights various aspects of the status quo the SA EC environment and has made various recommendations for EC CPG development. This proposed initiative to entirely restructure the current EC protocol will help transform the practice of prehospital EC in South Africa. The culminating transparent, evidence based and methodologically sound CPGs will likely have a significant impact on patient care and clinical outcomes.

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